

CLAIMS

What is claimed is:

1. A method for forming a wiring bond pad utilized in wire bonding operations on an integrated circuit device, said method comprising the steps of:

configuring a wiring bond pad to comprise a single metal layer; and

positioning at least one integrated circuit device below said wiring bond pad to thereby conserve integrated circuit space and improve wiring bond pad efficiency as a result of configuring said wiring bond pad as a single metal layer wiring bond pad.

2. The method of claim 1 wherein the step of configuring a wiring bond pad to comprise a single metal layer, further comprises the step of:

configuring said wiring bond pad as a single metal layer wiring bond pad.

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3. The method of claim 1 wherein the step configuring a wiring bond pad to comprise a single metal layer, further comprises the step of:

configuring said wiring bond pad to comprise said single metal layer, wherein said single metal layer is located above a plurality of intermetal dielectric layers.

4. The method of claim 3 further comprising the step of:

locating said at least one integrated circuit device below said plurality of intermetal dielectric layers.

5. The method of claim 4 wherein said single metal layer comprises a metal-8 layer.

6. The method of claim 4 wherein said plurality of intermetal dielectric layers comprises IMD-1 to IMD-7 layers.

7. The method of claim 6 wherein said metal-8 layer comprises a copper layer.

8. The method of claim 1 wherein said single metal layer comprises a copper layer.

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9. The method of claim 8 further comprising the step of:

forming a layer of aluminum film above said single metal layer.

10. The method of claim 9 wherein said layer of aluminum film formed above said single metal layer comprises a layer having a thickness in a range of and including 10KÅ to 20KÅ.

11. The method of claim 9 wherein said single metal layer comprises a copper layer having a thickness of approximately 10KÅ.

12. The method of claim 11 wherein said layer of aluminum film above said single metal layer comprises a buffer and bonding layer.

13. A wiring bond pad apparatus utilized in wire bonding operations on an integrated circuit device, wherein said wiring bond pad apparatus comprises:

a wiring bond pad configured to comprise a single metal layer; and

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at least one integrated circuit device positioned below said wiring bond pad to thereby conserve integrated circuit space and improve wiring bond pad efficiency as a result of configuring said wiring bond pad as a single metal layer wiring bond pad.

14. The wiring bond pad apparatus of claim 13 wherein said wiring bond pad is configured as a single metal layer wiring bond pad.

15. The wiring bond pad apparatus of claim 13 wherein said single metal layer is located above a plurality of intermetal dielectric layers.

16. The wiring bond pad apparatus of claim 15 wherein said at least one integrated circuit device is located below said plurality of intermetal dielectric layers.

17. The wiring bond pad apparatus of claim 16 wherein said single metal layer comprises a metal-8 layer.

18. The wiring bond pad apparatus of claim 16 wherein said plurality of intermetal dielectric layers comprises IMD-1 to IMD-7 layers.

19. The wiring bond pad apparatus of claim 18 wherein said metal-8 layer comprises a copper layer.

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20. The wiring bond pad apparatus of claim 13 wherein said single metal layer comprises a copper layer.

21. The wiring bond pad apparatus of claim 20 wherein a layer of aluminum film is formed above said single metal layer.

22. The wiring bond pad apparatus of claim 21 wherein said layer of aluminum film formed above said single metal layer comprises a layer having a thickness in a range of and including 10\AA to 20\AA .

23. The wiring bond pad apparatus of claim 21 wherein said single metal layer comprises a copper layer having a thickness of approximately 10\AA .

24. The wiring bond pad apparatus of claim 23 wherein said layer of aluminum film above said single metal layer comprises a buffer and bonding layer.